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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/042,666 | 03/17/1998 | ALMANTAS GALVANAUSKAS | A7139 | 5411 |

7590 09/18/2002
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EXAMINER

LEE, JOHN D

ART UNIT PAPER NUMBER

2874

DATE MAILED: 09/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/042,666

Applicant(s)

Almantas Galvanauskas et al.

Examiner

John D. Lee

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

RESTARTED AND

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) ~~filed on~~ ^{of} 09-11-02 (telephone interview)
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-28 is/are allowed.
- 6) ☒ Claim(s) 1, 5-13, 29-33, and 36 is/are rejected.
- 7) ☒ Claim(s) 2-4, 34, and 35 is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 24
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

This Office action supplements the Office action mailed on June 17, 2001, and further explains the rationale for rejection of claims 31-33 based on the judicially created doctrine of obviousness-type double patenting. The shortened statutory period for reply is hereby restarted and is set to expire THREE (3) MONTHS from the mailing date of this Office action.

Applicant's communications filed on March 5, 2002, supplementally on March 8, 2002, and further supplementally on May 1, 2002, have all been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are persuasive and the rejections set forth in the previous Office action are withdrawn. The arguments, explanations, and 37 CFR § 1.132 Declaration of Martin M. Fejer, sufficiently convince the Examiner that none of the references relied on in the previous Office action disclose or suggest *optical parametric generation (OPG)* in a nonlinear optical waveguide. The claimed subject matter would thus **not** have been obvious, at the time of applicant's invention, to a person of ordinary skill in the art. In view of further search, however, and the consequent discovery of relevant prior art documents, a new rejection is set forth below. This action is **not** made final.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR § 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR § 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR § 3.73(b).

Claims 1, 5-13, 29-33, and 36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, 23, and 24 of U.S. Patent No. 6,154,310. Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent claims recite an optical wavelength conversion apparatus for ultrashort optical pulses comprising a plurality of the same wavelength conversion channels (each including an optical waveguide with an optical parametric generation portion) of which only one is being claimed herein. Clearly, since the patent claims include a plurality of such channels, a person of ordinary skill in the art would have found a single such channel to have been obvious. The recitation in present claim 36 is a characteristic of the waveguide OPG device and would obviously have been present in the patented device. As for the recitations in present claims 29 and 30, the person of ordinary skill in the art would have recognized that these limitations are encompassed by the patent claims (as discussed in the patent beginning in column 5, line 24). With respect to claims 31 and 32, in addition to the "plurality of wavelength conversion channels versus a single wavelength conversion channel" rationale just discussed, it would have been obvious to use a more generically defined "optical pulse source generating optical pulses" or "a single laser source generating optical pulses" in the device of

U.S. Patent No. 6,154,310 (rather than the more specifically defined "ultrashort optical pulse source generating ultrashort optical pulses" as set forth in patent claim 1), because the person of ordinary skill would have understood the necessity of using a source producing pulses of whatever length may be required (i.e. if ultrashort wavelength converted pulses are desired, then an ultrashort pulse source is required; if longer wavelength converted pulses are desired, then a source producing longer pulses would be used). Claim 33 is not patentably distinct from the device set forth in claims 1-3 of U.S. Patent No. 6,154,310 because the optical wavelength conversion waveguide recited in lines 8-12 of claim 1 inherently has an input end and an output end, and because the same waveguide (see claims 2 and 3 of U.S. Patent No. 6,154,310) is comprised of a periodically poled ferroelectric nonlinear material such as LiNbO₃, LiTaO₃, or KTP. Both devices (the device of claim 33 herein and the device of claims 1-3 of the Patent) are wavelength converters (the latter for ultrashort optical pulses, the former for optical signals in general).

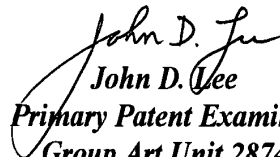
Claims 2-4, 34, and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claims of U.S. Patent No. 6,154,310 do not cover an ultrashort pulse generator which includes a mode converter for coupling input light into the optical waveguide. Note that if a proper terminal disclaimer is timely filed in order to overcome the above double patenting rejection, claims 2-4, 34, and 35 would be allowable without change.

Claims 14-28 are allowed. The claims of U.S. Patent No. 6,154,310 do not cover color image generating devices as specified in these claims.

Serial No. 09/042,666
Art Unit 2874

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Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (703) 308-4886. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (703) 308-0956, to the technical support staff supervisor (Team 2) at telephone number (703) 308-3072, or to the Technology Center 2800 Customer Service Office at telephone number (703) 306-3329.


John D. Lee
Primary Patent Examiner
Group Art Unit 2874